

REMARKS

Claims have been carefully reviewed in light of the Examiner's action.

Claims 1-4 have been canceled and rewritten as new claims 24-27, to overcome rejection by the Examiner, based on being anticipated by Kejha's US Patent No. 5,443,602 , and by Kejha's Application No. 08/281,011.

New claims 24-27 are narrowed by incorporating different drive system of the dip-coating method of the invention than the prior art dip-coating methods cited by the Examiner, and these new claims are supported by the Specification and Drawings. The drive system of the invention improves the uniformity of coating by a better control of the web's speed uniformity at the feed end , by means of driven nip-rollers 5A , which method is not used in the prior art '602 patent.

Prior art dip-coaters control the speed of the web by a driven winding spool at the receiving end, and thus have to compensate for the growing diameter of the spool by gradually varying RPM of the spool, which is difficult to control smoothly, without the web speed fluctuation. The uniformity of coating thickness depends greatly on steadiness of the web speed (Page 4, lines 7, 8 , and page 11, lines 12 , 13). The drive system of the invention also has a winding spool at the receiving end, but this spool does not control the speed of the web, just keeps the web in tension due to the overdrive system with a slip-clutch.

However, the Application No. 08/281,011 filed on July 27, 1994 and referenced by the Examiner, was abandoned and is not accessible on the Internet.

If applicants will find, that this Application is not accessible to public by other means, or that it was lost, then it would make this reference null , and applicants

reserve the right later to revert to the original claims 1-4 with all of their dependent claims, and additionally to add a new claim dependent on claims 1-4, defining the new drive system.

Claims 5 and 6 have been amended and made dependent on new claims 24-27, and additionally the primer was corrected as adhesion promoting, to differentiate from the prior art of Andersen at al. (US No. 6,280,879), which correction is also supported by the Specification (Page 4, lines 12-14). Similarly, the primer in claim 19 was also corrected.

The primer of the invention is used for new purpose and thus it is new application of the invention for improvement of the coating. Good adhesion of the coating improves the high rate capability of the electrodes. Applicants' primers are not for the corrosion protection of the web from corrosive salts and electrolytes, as Andersen's primers, but they are for a better adhesion of coating.

However, applicants' primers must be solvent resistant, so they do not wash-off during dip-coating (Page 12, line 26 and page 13, line 6).

Results are not the same, because Andersen at al. do not teach the adhesion promotion by primers for high rate capability, and they use very different method of coating. Additionally, Andersen at al. do not describe lithium polysilicate in the primer as claimed in claims 9 and 20.

Claims 7 and 8 have been amended to make them dependent on new claims 24-27.

Applicants agree with the Examiner that Andersen at al. disclose similar slurries, but claims 7 and 8 are now dependent on new claims 24-27 with all of their limitations, which should make them allowable.

Claims 9-14 and 20-23 are also dependent on new claims 24-27 with all their limitations, which should make them allowable. Additionally, claims ~~12~~¹¹-14 and 22,23 have their own unique features and limitations, which are not described in prior art, and should be considered on their own merit. (If necessary, they can be combined with new claims 24-27, or 5 and 6, or even with former claims 1-4.) Claims 15-19 have been amended to differentiate from Kejha's Application '011 structures, and they define new electrodes' structures for lithium based electrochemical devices and capacitors other than prior art structures, and which are not known in prior art.

Even if other dip-coating methods are known, nobody suggested or reduced to practice before the time of the invention an electrode structure for lithium based electrochemical devices and capacitors, having a solid metal grid, expanded solid metal foil, perforated solid metal foil, or a solid metal foil embedded in the middle by any dip coating method.

The above grids, foils and structures provide for higher volumetric power density (W/l), as explained in applicants' prior Amendment dated Dec. 6, 2003 (Page 11, lines 11-21), and thus are an improvement over the prior art cited by the Examiner. The structures claimed are also supported by the Specification (Page 5, lines 19-21 and page 11, lines 7-11) and the Drawings.

The best results with the high rate and high volumetric energy density electrodes are achieved by a combination of all three features of the invention: thicker metal layer of the web, adhesion promoting primer, and the embedding of the web by dip-coating of active materials on it, which achieves a superior contact over the


prior art. However, each feature described also improves the performance individually, as claimed.

All of the above amended claims and their corrections were discussed during applicant's personal interview with the Examiner on Nov. 30, 2004 at the PTO, and it was agreed that these corrections make them potentially allowable, and that no new matter has been added.

It is believed that the claims define new and unobvious subject matter.

Accordingly, it is believed, that the Amendment places the Application in condition for allowance and such action is requested and urged.

Respectfully submitted,


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